2017 ▪ First Quarter

AGRICULTURAL Finance Monitor

Selected Quotes from Banker Respondents Across the Eighth Federal Reserve District

Real estate values fell in 2016; however, recent land sales are showing some strength, which has helped to bring prices back up slightly. Soybean prices held up well, which allowed farmers to market their 2016 crop at a higher price than projected. Although corn prices have trended lower, producing some concern for 2017 crop income, the majority of our customers are very good marketers and will do okay by holding their costs down. Most have renegotiated any leases that they perceived to be too high to cash flow; this has raised expectations for a profitable year due to some input costs being reduced for 2017. (Illinois)

Farmers are experiencing slim margins, but also an extended time frame in revenue collections. For example, farm program payments for low market prices are not paid for 14-15 months after harvest. (Arkansas)

Poultry production income remains stable, with some expansion taking place. Cattle prices have softened, which has adversely affected overall farm income. Credits still are performing well. (Arkansas)

Demand for recreational ground (trees, no timber) has increased dramatically in the past year, with prices paid exceeding that of pastureland. Income in 2016 exceeded income in 2015, which was affected by excessive moisture. (Missouri)

NOTE: These are generally verbatim quotes, but some were lightly edited to improve readability.

The twentieth quarterly survey of agricultural credit conditions was conducted by the Federal Reserve Bank of St. Louis from March 15, 2017, through March 31, 2017. The results presented here are based on the responses from 32 agricultural banks within the boundaries of the Eighth Federal Reserve District.[1] The Eighth District includes all or parts of seven Midwest and Mid-South states. These data are not adjusted for any seasonal patterns. Accordingly, users are cautioned to interpret the results carefully, particularly with respect to agricultural lending conditions. Users are also cautioned against drawing firm conclusions about longer-run trends in farmland values.[2]

Executive Summary

Farm income declined in the first quarter of 2017 from a year earlier according to the latest survey of agricultural bankers in the Eighth Federal Reserve District. Proportionately more bankers reported that farm households continued to trim household expenditures and capital spending in the first quarter from a year earlier. Slightly more bankers reported that declines in farm incomes and farm household expenditures in the first quarter exceeded their expectations from three months earlier. Quality farmland and ranchland or pastureland values rose sharply in the first quarter from a year earlier. The increase in quality farmland values in the first quarter was the largest in three and a half years. However, the majority of bankers expect farmland values to decline in the second quarter. Cash rents for quality farmland and ranchland or pastureland declined slightly in the first quarter. Interest rates on fixed-rate loans secured by farm real estate have increased by only 10 basis points over the past four quarters (0.10 percentage points). Results from our special questions suggest that the overall quality of the Eighth District farm loan portfolio remains stable (no significant repayment problems). We also asked our bankers to cite their top concern for 2017. A little less than two-thirds (62 percent) reported that further declines in farm incomes was their number one concern.

Survey Results

Farm Income and Expenditures

Similar to the past several reports, proportionately more bankers continue to report year-over-year declines in farm income. In the first quarter of 2017, the farm income diffusion index measured 55. [NOTE: An index value of 100 would indicate that an equal percentage of bankers reported increases and decreases in farm income relative to a year earlier.] However, the percentage reporting falling farm incomes has been declining modestly since the second quarter of 2016, as evidenced by a steady rise in the diffusion index. The index is projected to increase modestly further in the second quarter of 2017, from 55 to 62. This development is heartening because it suggests that a rising number of bankers—though still a minority—are noting that farm income has stopped declining from year-earlier levels. Bankers noted a similar pattern

In the survey, bankers are regularly asked two types of questions: (i) estimates of current dollar values and interest rates and (ii) expectations for future values. Dollar values and rates refer to the first quarter of 2017. Regarding expectations for future values, bankers were asked whether they expect values to increase, decrease, or remain constant (either relative to a year ago or relative to current values; see table descriptions). A "diffusion index" value was then created for "income and expenditures" and for the 3-month trends in "land values" and "cash rents" (per acre). The diffusion index was created by subtracting the percent of bankers that responded "decrease" from the percent that responded "increase" and then adding 100. We reasonably interpret a "remain constant" response as half a "decrease" response and half an "increase" response. Hence, index values from 0 to 99 indicate a majority witnessed/expected decreases; index values from 101 to 200 indicate a majority witnessed/expected increases; and an index value of 100 indicates an even split. More specifically, lower index values indicate proportionately more bankers witnessed/expected decreases.

The results reported in these tables refer to the entire Eighth Federal Reserve District.

Table 1

Income and Expenditures (versus year-ago levels)

	Index value
Farm income	
2017:Q1 (actual)	55
2017:Q2 (expected)	62
Household spending	
2017:Q1 (actual)	72
2017:Q2 (expected)	75
Capital spending	
2017:Q1 (actual)	43
2017:Q2 (expected)	50

NOTE: Actual and expected values for the indexes use all responses from the 2017:Q1 survey.

Table 2

Land Values and Cash Rents (year/year change)

	Percent or index value
Land values	
Quality farmland	10.0%
Expected 3-month trend	78
Ranchland or pastureland	7.2%
Expected 3-month trend	92
Cash rents	
Quality farmland	–0.9%
Expected 3-month trend	69
Ranchland or pastureland	–0.7%
Expected 3-month trend	86

NOTE: Changes in land values and cash rents are calculated using a common sample of respondents for the most recent survey as well as the survey conducted a year ago. Expected trends of land values and cash rents are calculated using all responses from the 2017:Q1 survey. Expected trends are presented as a diffusion index; see the note above for details about interpreting diffusion indexes.

for farm household expenditures and capital outlays, as their diffusion indexes have also risen since early 2016 (see Table 1 and Figures 3 to 5). Readers are reminded that farm income is highly volatile and subject to seasonal fluctuations.

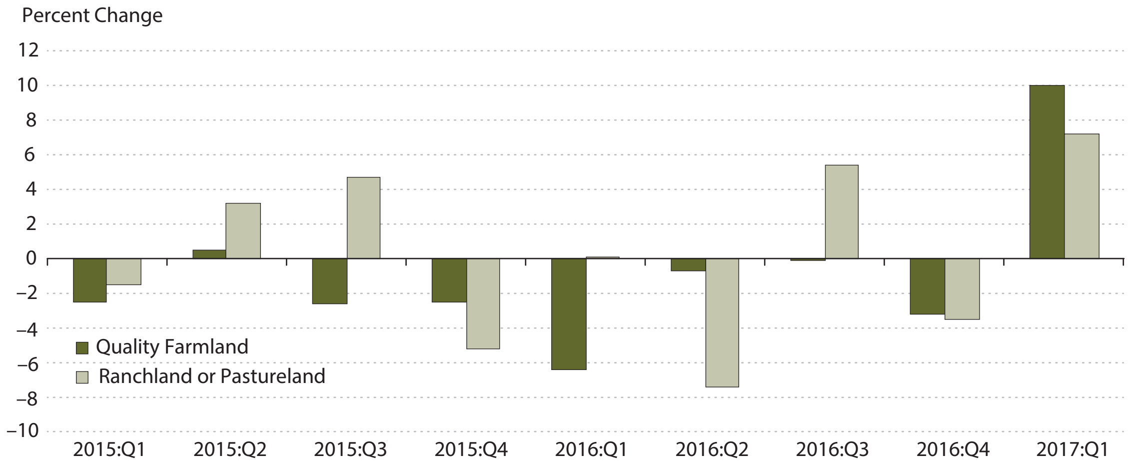
Current and Expected Land Values and Cash Rents

Perhaps somewhat surprisingly, quality farmland and ranchland or pastureland values posted healthy increases in the first quarter of 2017. Compared with four quarters earlier, quality farmland values increased by 10 percent in the first quarter, while ranchland or pastureland values rose by 7.2 percent. By contrast, cash rents for quality farmland and ranchland or pastureland declined slightly in the first quarter—but the declines were the smallest in more than a year. As evidenced by the diffusion indexes expected in the second quarter (below 100), proportionately more bankers believe that the first-quarter increase in both types of land values will not carry forward into the second quarter of 2017 (see Table 2 as well as Figures 1 and 2).

Outcomes Relative to Previous-Quarter Expectations

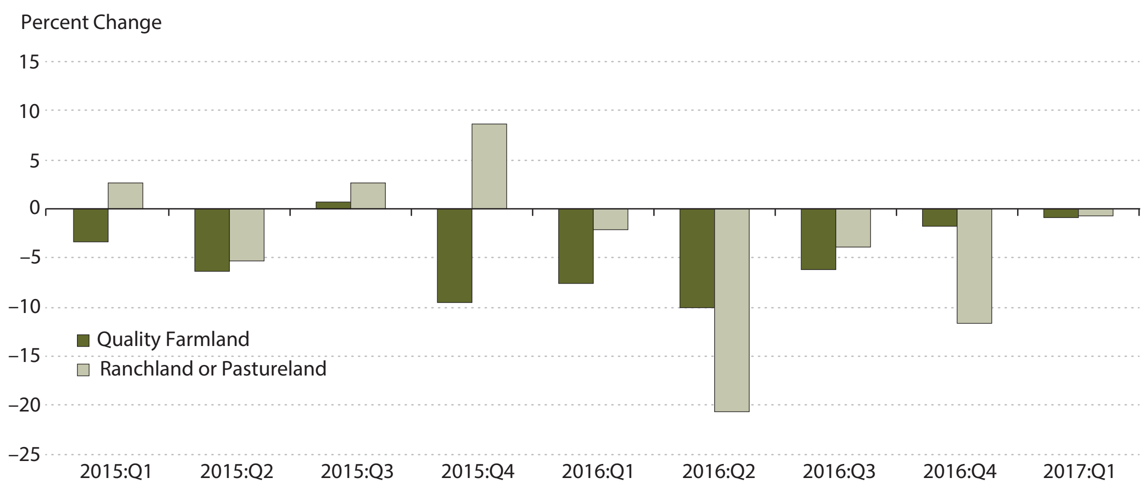
Table 3 reports diffusion indexes for farm income, household expenditures, and three bank-related metrics for the first quarter of 2017 as well as the expected values for the first quarter that agricultural bankers reported in the fourth quarter of 2016. [NOTE: For Table 3, we compute diffusion indexes using only those banks that responded to the 2016 fourth-quarter survey and the 2017 first-quarter survey.] As seen by the smaller actual diffusion indexes (relative to the expected indexes), a slightly larger percent-

Figure 1
Year-Over-Year Change in Average Eighth District Land Values



NOTE: Percent changes are calculated using responses only from those banks reporting in both the past and the current quarters.

Figure 2
Year-Over-Year Change in Average Eighth District Cash Rents



NOTE: Percent changes are calculated using responses only from those banks reporting in both the past and the current quarters.

age of bankers reported that farm incomes and farm household expenditures declined in the first quarter by more than they expected three months earlier. Bankers reported a similar development for the demand for bank loans. By contrast, capital spending matched expectations from three months earlier. Slightly more bankers noted greater availability of funds and a higher rate of loan repayment than were expected three months earlier.

Financial Conditions

Table 4 reports our survey respondents' assessment of prospective bank lending conditions in the Eighth District in the second quarter of 2017 relative to the first quarter. As noted in previous surveys, the actual index values for first-quarter values reported in Table 4 may differ from those reported in Table 3 because Table 4 uses all responses from the first-quarter 2017 survey, instead of a common

Table 3

2017:Q1 Variables (versus year-ago levels)

	Index value
Farm income	
Expected	56
Actual	44
Difference	–11
Household spending	
Expected	67
Actual	61
Difference	–6
Capital spending	
Expected	44
Actual	44
Difference	0
Demand for loans	
Expected	133
Actual	117
Difference	–17
Availability of funds	
Expected	100
Actual	111
Difference	11
Rate of loan repayment	
Expected	83
Actual	89
Difference	6

NOTE: All variables are reported using a diffusion index. See the note above Table 1 for details about interpreting diffusion indexes. For comparison purposes, we compute diffusion indexes using only those banks that responded to the given questions in both the past and the current quarters. Components may not sum to totals due to rounding.

Table 4

Lending Conditions (versus year-ago levels)

	Index value
Demand for loans	
2017:Q1 (actual)	103
2017:Q2 (expected)	107
Availability of funds	
2017:Q1 (actual)	110
2017:Q2 (expected)	107
Rate of loan repayment	
2017:Q1 (actual)	86
2017:Q2 (expected)	82

NOTE: Demand for loans, availability of funds, and rate of loan repayment are reported using a diffusion index. See the note above Table 1 for details about interpreting diffusion indexes. Actual and expected values for indices use all responses from the 2017:Q1 survey.

Table 5

Interest Rates (%)

	2017:Q1	2016:Q4	Change
Operating			
Fixed	5.63	5.66	–0.03
Variable	5.13	5.04	0.10
Machinery/ intermediate-term			
Fixed	5.93	5.86	0.07
Variable	5.39	5.21	0.18
Farm real estate			
Fixed	5.37	5.34	0.03
Variable	5.19	5.02	0.17

NOTE: For comparison purposes, we calculate interest rates in both periods using a common sample of banks that responded to the given questions in both the past and the current quarters. Components may not sum to totals due to rounding.

sample between the current and previous surveys. Looking forward, bankers' expectations for loan demand, availability of funds, and rate of loan repayment in the second quarter are little changed from the previous quarter. Still, a slightly larger percentage of bankers expect year-over-year increases in loan demand and availability of funds in the second quarter relative to a year earlier (an index value more than 100); the opposite is the case for loan repayment rates, which are expected to worsen slightly in the second quarter (an index value less than 100).

Table 5 presents average interest rates on fixed- and variable-rate loan products in the fourth quarter of 2016 and the first quarter of 2017. Interest rates were modestly higher in the first quarter for all categories except for fixed-rate operating loans. Although not shown in the table, interest rates on fixed-rate farm real estate loans have increased by 10 basis points (0.10 percentage points) over the past four quarters, while interest rates on variable-rate real estate loans have increased by 2 basis points.

Figure 3

Farm Income: Expected and Actual Values

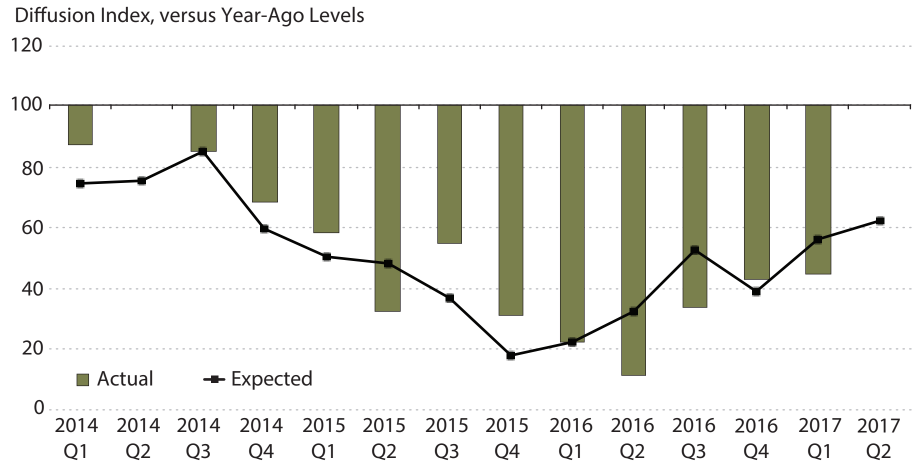


Figure 4

Household Spending: Expected and Actual Values

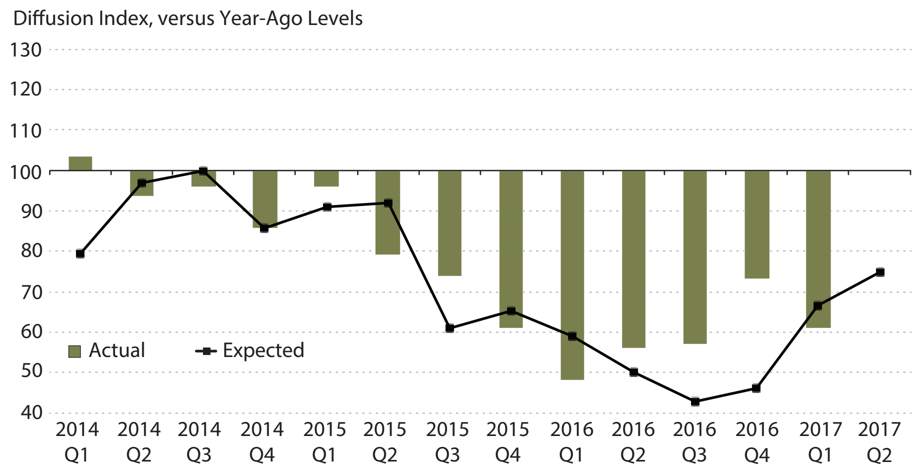
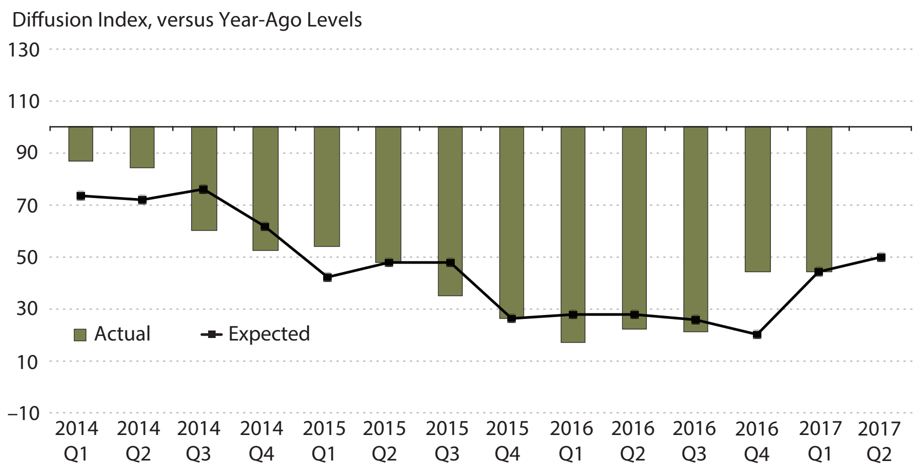


Figure 5

Capital Spending: Expected and Actual Values



NOTE: All variables in Figures 3 through 8 are reported using a diffusion index. See the note above Table 1 for details about interpreting diffusion indexes. For comparison purposes, we compute diffusion indexes using only those banks that responded to the given questions in both the past and the current quarters. Expected values for indices in 2017:Q2 are calculated using only the responses from the 2017:Q1 survey. There is no actual value (and hence no bar) for the final quarter shown in each figure. For all previous quarters, if no bar is shown, the actual value is 100.

Figure 6

Demand for Loans: Expected and Actual Values

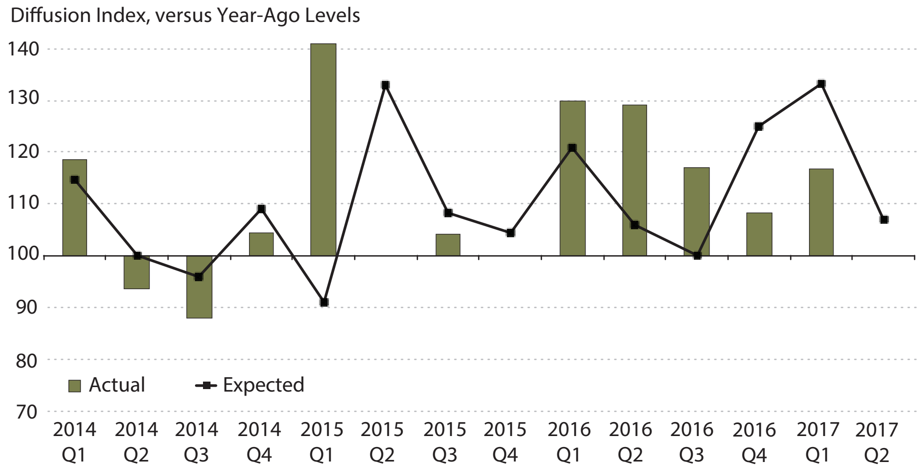


Figure 7

Availability of Funds: Expected and Actual Values

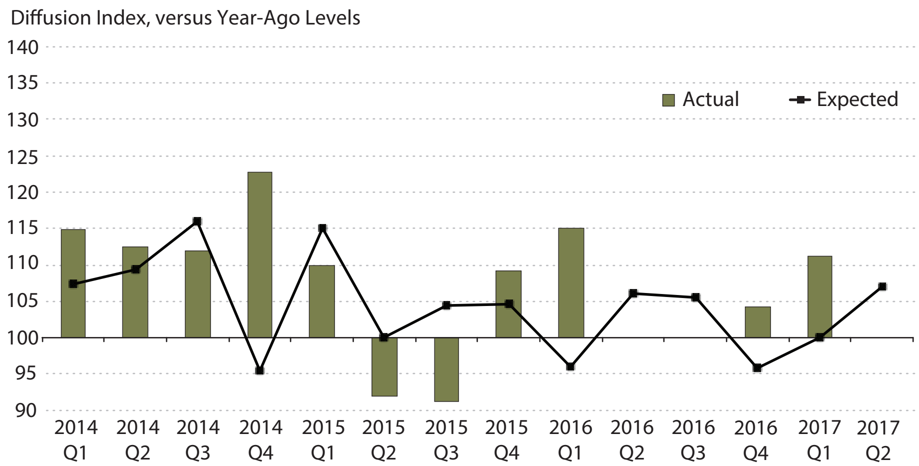
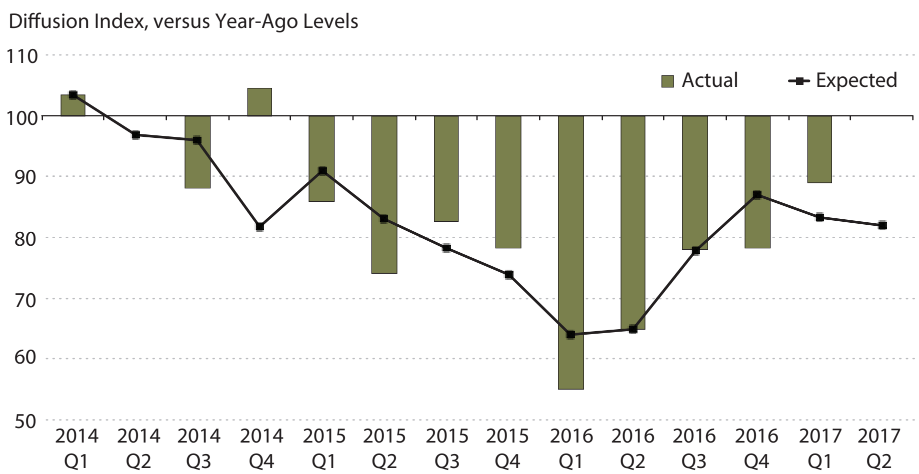


Figure 8

Rate of Loan Repayment: Expected and Actual Values



NOTE: All variables in Figures 3 through 8 are reported using a diffusion index. See the note above Table 1 for details about interpreting diffusion indexes. For comparison purposes, we compute diffusion indexes using only those banks that responded to the given questions in both the past and the current quarters. Expected values for indices in 2017:Q2 are calculated using only the responses from the 2017:Q1 survey. There is no actual value (and hence no bar) for the final quarter shown in each figure. For all previous quarters, if no bar is shown, the actual value is 100.

Special Questions

Table 6 reports the results of three special questions posed to our agricultural bankers. The first question asked each banker to rate their farm loan portfolio based on repayment rates, while the second question asked bankers about the borrowing capacity of their customers. These same two questions were posed to bankers four quarters earlier. In general, not much has changed over the past year. In the first quarter of 2017, 80 percent of all farm loans were current or had no significant repayment problems; a year earlier, the percentage was 78 percent. Only 14 percent of farm loans had minor repayment problems, the same percentage as a year earlier. According to the results from the second question, bankers reported that one-third of their customers had borrowed up to their loan limit. This percentage was also little changed from four quarters earlier (34 percent).

Finally, the last question asked bankers to list their top concern for 2017. A little less than two-thirds of bankers (62 percent) reported that further declines in farm incomes was their number one concern. Equal percentages (14 percent) cited rising interest rates and an unusual weather pattern as their top concern. No bankers cited declining farmland values as their top concern. ■

Table 6

Special Questions

Please indicate the percentage of the dollar amount of your bank's farm loan portfolio that currently falls within each of the following repayment classifications.

Percent of farm loans	
No significant repayment problems	80
Minor repayment problems which can be remedied fairly easily	14
Major repayment problems requiring more collateral and/or long-term workouts	5
Severe repayment problems which will likely result in loan losses and/or require forced sales of borrower's real assets	1

Approximately what percent of your customers have borrowed up to their loan limit?

Percent of customers	33

What is your top concern this year? (Please choose one answer.)

Percent of respondents	
Further declines in farm incomes	62
Rising interest rates	14
Rising input costs (e.g., seed, fuel)	3
Declining farmland values	0
An unusual weather pattern	14
Weak or falling sales and/or profits of agribusinesses in your area	7
Other	0

Notes

[1] An agricultural bank, for survey purposes, is defined as a bank for which at least 15 percent of its total loans outstanding finances agricultural production or purchases of farmland, farm equipment, or farm structures. As of December 31, 2016, there were 235 banks in the Eighth Federal Reserve District that met this criteria.

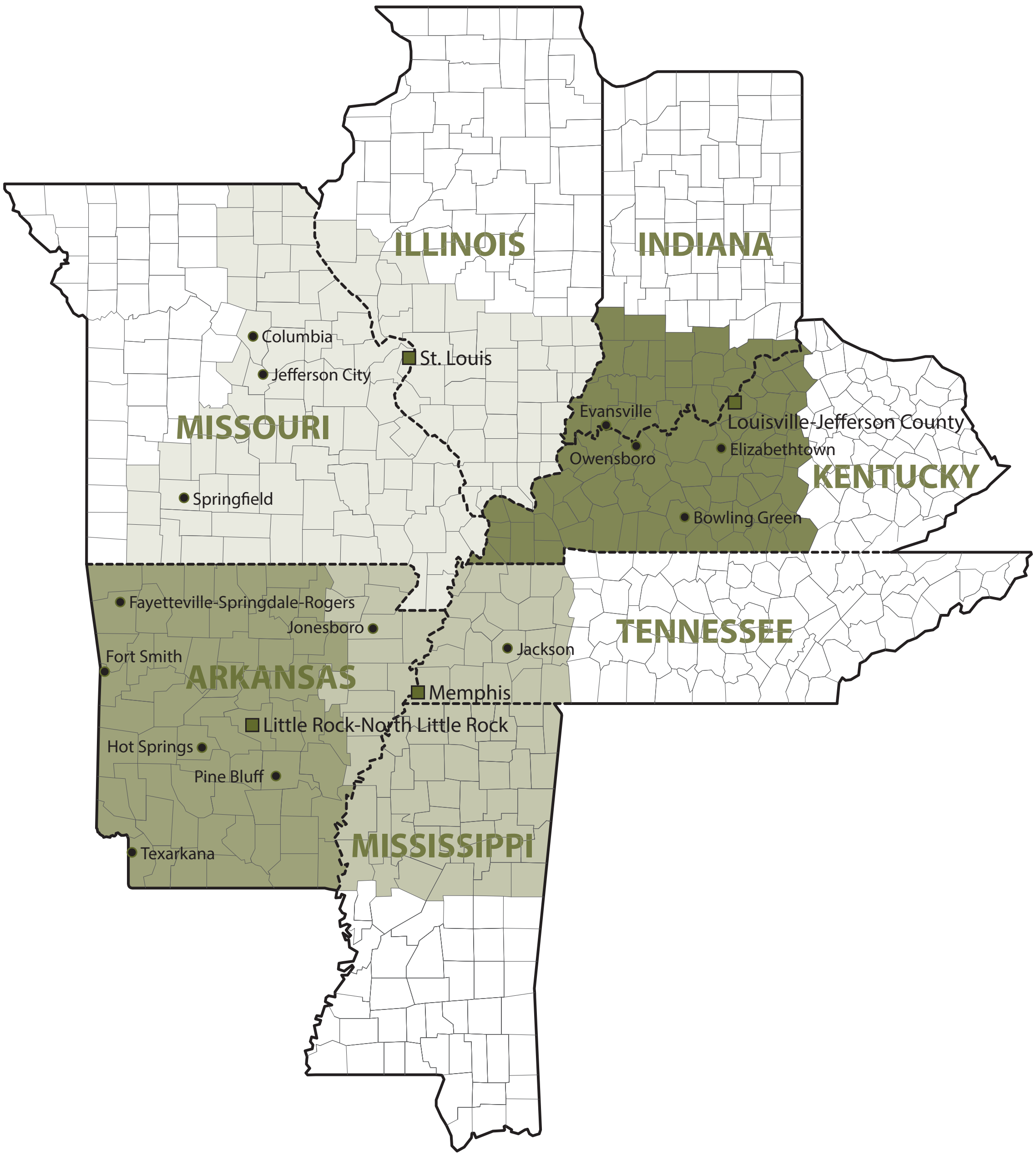
[2] Readers are also cautioned that the number of responses in each zone is relatively small. Statistically, this tends to suggest that the responses in each zone have a larger plus-or-minus margin of error than for the District as a whole. We have eliminated the zone-by-zone responses until the response rate improves.

The survey is produced by staff at the Federal Reserve Bank of St. Louis: Larry D. Sherrer, Senior Examiner, Banking Supervision and Regulation Division; Jonas Crews and Brian Levine, Research Associates; and Kevin L. Kliesen, Business Economist and Research Officer, Research Division. We thank staff at the Federal Reserve Bank of Kansas City for initial and ongoing assistance with the agricultural credit survey.

If you have comments or questions, please contact Kevin Kliesen at kevin.l.kliesen@stls.frb.org.

The Eighth Federal Reserve District is headquartered in St. Louis and includes branch offices in Little Rock, Louisville, and Memphis; the District includes the state of Arkansas and portions of Illinois, Indiana, Kentucky, Mississippi, Missouri, and Tennessee.

Posted on May 11, 2017


ILLINOIS
INDIANA
MISSOURI
KENTUCKY
TENNESSEE
ARKANSAS
MISSISSIPPI
Columbia
St. Louis
Jefferson City
Evansville
Louisville-Jefferson County
Owensboro
Elizabethtown
Springfield
Bowling Green
Fayetteville-Springdale-Rogers
Jonesboro
Jackson
Fort Smith
Memphis
Little Rock-North Little Rock
Hot Springs
Pine Bluff
Texarkana